

REMARKS

Reconsideration and allowance of the subject application are respectfully requested in view of the above amendments and the following remarks.

Status of the Claims and Amendments

Claims 23, 24, 27 and 29-32 are pending in this application, with Claim 24 being the only independent claim. Claim 24 is amended herein to more clearly recite the features of the present invention. Support for this amendment can be found in the specification at least at page 6, lines 18-26; page 30, line 19 to page 31, line 11; page 72, line 23 to page 73, line 2; page 73, line 24 to page 74, line 9; and in the Examples. It is submitted that no new matter has been added by the amendments herein.

Double-Patenting Rejections

Claims 24 and 29-32 were rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1-32 of U.S. Patent No. 6,460,989 (“Yano et al.”). Claim 1 was rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1-21 of U.S. Patent No. 6,659,601 (“Goto et al.”). Claim 1 was previously cancelled; therefore, this rejection is moot. Claims 24 and 29-32 were rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1-40 of U.S. Patent No. 6,517,199 (“Tomioka et al.”). Regarding the rejections based on Yano et al. and Tomioka et al.,

and to the extent that the rejection based on Goto et al. was intended to be applied to pending claims, the possibility of filing a terminal disclaimer is being considered.

Obviousness Rejection

Claims 23, 24, 27 and 29-32 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over Field et al. (U.S. Patent No. 6,420,039). In Applicants' view, the cited reference does not teach or suggest the invention as presently claimed.

The present invention, as recited in Claim 24, relates to an ink-jet imaged recording medium comprising a colored portion. The colored portion comprises aggregates of fine particles, each of the fine particles having a coloring material thereon by adsorption in a monomolecular state. The coloring material is anionic or cationic, and the fine particles have a polarity opposite to that of the coloring material. The color portion is obtained by applying an ink containing the coloring material and a liquid composition containing the fine particles to a recording medium in such a manner that the ink and the liquid composition come in contact with each other in a liquid state.

Thus, in the present invention, the image is formed by a liquid-liquid reaction when the ink (containing a coloring material) and the liquid composition (containing fine particles) come in contact in a liquid state on the recording medium. As a result, in the image portion of the present invention, the coloring material is adsorbed sufficiently and efficiently by fine particles in a monomolecular state, compared with a conventional image formed on a coated paper. Moreover, in the present invention, the amount of the fine particles can be reduced, and the texture of the base paper is not impaired. (See page 4, line 19 to page 6, line 17, and portions

cited above as support for the amendment). Accordingly, Applicants submit that an image formed according to the present invention and one formed on a coated paper are different in structure.

Applicants note that the invention disclosed in Field et al. is a coated paper itself, and therefore conclude that the present invention is neither taught by nor obvious over Field et al. In particular, it is not seen that Field et al. teaches or suggests the feature that the colored portion is obtained by applying an ink and a liquid composition to a recording medium in such a manner that they come in contact with each other in a liquid state. Accordingly, withdrawal of this rejection is respectfully requested.

Response to Examiner's Request for Clarification

In the December 23, 2003 Office Action, the Examiner inquired whether the materials recited in Applicants' copending applications were in the form of fine particles. Applicants respond as follows:

In Takahashi et al. '740, Shirota et al. '249, and Shimomura et al. EP '950, first the coloring material and a low molecular cationic substance form aggregates by association. The formed aggregates are then adsorbed onto the high molecular weight cationic substance (there is an example of particles). Thus, it is the low molecular weight cationic substance that adsorbs the coloring material. The recited low molecular weight cationic substance is a salt, not a particle. Thus, Applicants submit that this art does not teach or suggest the technical feature of the present invention that fine particles adsorb the coloring material in a monomolecular state.

Still further, Takahashi et al. '484, Kurabayashi et al. '210, and Ono et al. '945 disclose resin but no fine particles. Thus, Applicants submit that this art does not teach or suggest the technical feature of the present invention that fine particles adsorb the coloring material in a monomolecular state.

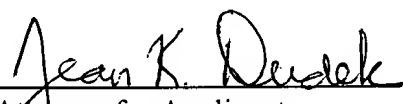
Conclusion

Applicants therefore conclude that the art of record does not teach or suggest the features of the invention as presently claimed. Applicants submit that the present invention is patentably defined by independent Claim 24. The dependent claims are allowable for the same reasons as independent Claim 24, as well as for the patentable features recited therein. Individual consideration of the dependent claims is respectfully requested.

Applicants request withdrawal of the above-noted rejections, and submit that this application is in condition for allowance. A Notice of Allowance is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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